

Int'l Appl. No. : PCT/JP2004/005498
Int'l filing date : April 16, 2004

AMENDMENTS TO THE CLAIMS

1. (Original) A biologically active substance-immobilized device, which comprises a base particle comprising a core particle and an organic compound having two or more hydrophilic groups and immobilized on the core particle by a chemical bond and a biologically active substance bonded to the base particle via the organic compound.

2. (Currently amended) The device according to claim 1, ~~which is used~~ monodispersed in an aqueous medium.

3. (Currently amended) The device according to claim 1 ~~or 2~~, wherein the base particle has an average particle diameter of 0.01 to 100 μm .

4. (Currently amended) The device according to ~~any one of claims 1 to 3~~ claim 1, wherein the base particle has a spherical or substantially spherical shape.

5. (Currently amended) The device according to ~~any one of claims 1 to 4~~ claim 1, wherein at least one of CV_b ratio and CV_c ratio defined by the following equations is 0.6 to 3.0:

$$CV_b \text{ ratio} = CV_1 / CV_3$$

$$CV_c \text{ ratio} = CV_2 / CV_3$$

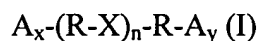
$$CV_1 = (\text{Standard deviation of core particle diameter} / \text{Average core particle diameter}) \times 100$$

$$CV_2 = (\text{Standard deviation of base particle diameter} / \text{Average base particle diameter}) \times 100$$

$$CV_3 = (\text{Standard deviation of device diameter} / \text{average device particle diameter}) \times 100$$

6. (Currently amended) The device according to ~~any one of claims 1 to 5~~ claim 1, wherein the core particle and the biologically active substance are bonded by a reaction with a functional group selected from the group consisting of carbodiimide group, ester group, carbonate group, epoxy group and oxazoline group.

7. (Currently amended) The device according to ~~any one of claims 1 to 6~~ claim 1, wherein the organic compound is a compound represented by the following formula:



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wherein A_x and A_y independently represent a segment having a functional group that exhibits hydrophilicity and may be identical or different, R independently represents an organic group of two or more valences, X independently represents carbodiimide group, epoxy group or oxazoline group, and n is an integer of 2 to 80, ~~preferably 2 to 40.~~

8. (Currently amended) The device according to ~~any one of claims 1 to 7~~claim 1, wherein the biologically active substance is selected from a nucleic acid, protein, hapten and saccharide.

9. (Currently amended) The device according to ~~any one of claims 1 to 8~~claim 1, which is for detecting or measuring a second biologically active substance contained in a sample by using a specific bond of the biologically active substance and the second biologically active substance in the sample.

10. (Currently amended) The device according to ~~any one of claims 1 to 8~~claim 1, wherein the biologically active substance is an agent for therapeutic treatment of a disease.

11. (New) The device according to claim 7, wherein n is an integer of 2 to 40.

12. (New) A method of detecting or measuring a second biologically active substance in a sample comprising the step of binding the second biologically active substance to the biologically active substance bound to the base particle in the device of claim 1.